



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,409	11/20/2003	Yasutomo Ishii	051626-5007	5553
9629	7590	04/26/2005	EXAMINER	
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			BRASE, SANDRA L	
			ART UNIT	PAPER NUMBER
			2852	

DATE MAILED: 04/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/716,409	ISHII ET AL.	
	Examiner	Art Unit	
	Sandra L. Brase	2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 11-21 and 25 is/are rejected.
- 7) ☒ Claim(s) 7-10, 22-24, 26 and 27 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/20/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Komori (US 6,782,215).

4. Komori (...215) discloses a charging device that electrically charges a charged object charged while being moved in a predetermined direction comprising: a charging member (1) that electrically charges the charged object; a power source (3) that supplies electric power to the charging member in order to electrically charge the charged object; a contact member (8) arranged downstream relative to the charging member as viewed in the moving direction of the charged object and adapted to contact the charged object directly (figure 2); an ammeter (14) that gauges an electric current to flow through the contact member due to an electric charge on the

Art Unit: 2852

charged object electrically charged by the charging member; and a power source control section (12) that controls the power source on the basis of the electric current gauged by the ammeter (col. 3, lines 57-62). The charging member is a contact charging member being adapted to electrically charge the charged object in a state where the charging member contacts the charged object (figure 2).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 2-5, 11-14, 16-19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komori (US 6,782,215) in view of Kisu et al. (US 5,420,671).

8. Komori (...215) discloses the features mentioned previously, and disclose an image forming apparatus adapted to form a toner image on a recording medium by way of a process of

Art Unit: 2852

electrically charging a photosensitive body (2) being moved in a predetermined moving direction and producing an electrostatic latent image on the photosensitive body when being exposed to light so as to carry a toner image as a result of developing the electrostatic latent image and ultimately by transferring the toner image onto the recording medium, where the charging member charges the photosensitive body (col. 3, lines 5-34; and figure 2); and a transfer member (8) arranged at a transfer position located downstream relative to the charging member as viewed in the moving direction of the photosensitive body and adapted to contact the photosensitive body directly in order to transfer the toner image formed on the photosensitive body onto a recording medium (figure 2), where the transfer member operates as the contact member (col. 3, lines 57-62). The transfer member is a transfer roll and pressed against the surface of the photosensitive body with a constant load (figure 2). The power source control section is adapted to control a voltage applied to the charging member by the power source on the basis of the electric current gauged by the ammeter (col. 3, lines 57-62). However, Komori (...215) do not disclose the claimed power source with control of the AC current and inter-peak voltage, and the claimed toner image fixing. Kisu et al. (...671) disclose an image forming apparatus including a charging member (4) with a power source, including a constant current source (G), that supplies electric power showing a voltage waveform obtained by superimposing an AC voltage on a DC voltage (col. 6, lines 52-61; and col. 11, lines 21-26), where the electric current of the AC component supplied is controlled based on an electric current sensed (col. 11, lines 26-31). The power source control section controls an inter-peak voltage of the AC voltage supplied (col. 7, line 25 – col. 9, line 17). The image forming apparatus has a fixing device to fix a toner image onto a recording apparatus (col. 5, lines 26-41). It would have been obvious to one of ordinary

Art Unit: 2852

skill in the art at the time of the invention to have the power source be the claimed power source with control of the AC current and inter-peak voltage, as disclosed by Kisu et al. (...671), so that the surface potential of the member to be charged becomes uniform. It would have also been obvious to one of ordinary skill in the art at the time of the invention to have the claimed toner image fixing, as disclosed by Kisu et al. (...671), so that the toner image is permanently fixed to the recording medium.

9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komori (US 6,782,215) in view of Kisu et al. (US 5,420,671) as applied to claim 14 above, and further in view of Ito (US 6,668,143).

10. Komori (...215) in view of Kisu et al. (...671) disclose the features mentioned previously, and Kisu et al. (...671) disclose the power source control section amending the inter-peak voltage based on temperature and humidity, but do not disclose the claimed environmental detection unit. Ito (...143) discloses an environmental detection unit that detects the temperature and the humidity of the surroundings of a photosensitive body in an image forming apparatus (col. 9, line 61 – col. 10, line 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the claimed environmental detection unit, as disclosed by Ito (...143), so that the environmental conditions can be accurately determined.

Art Unit: 2852

11. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komori (US 6,782,215) in view of Kisu et al. (US 5,420,671) as applied to claim 19 above, and further in view of Takahashi (US 4,026,648).

12. Komori (...215) in view of Kisu et al. (...671) disclose the features mentioned previously, but do not disclose the claimed blade provided with the transfer roll. Takahashi (...648) discloses an image forming apparatus including a transfer roll (9) provided with a blade (17) adapted to contact the peripheral surface of the transfer roll (col. 5, lines 30-51). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the claimed blade provided with the transfer roll, as disclosed by Takahashi (...648), so that surface of the transfer roll can be cleaned with a high cleaning effect.

13. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komori (US 6,782,215) in view of Kisu et al. (US 5,420,671) as applied to claim 11 above, and further in view of Furuya (US 6,118,952).

14. Komori (...215) in view of Kisu et al. (...671) disclose the features mentioned previously, but do not disclose the claimed plurality of photosensitive bodies. Furuya (...952) discloses an image forming apparatus including a plurality of photosensitive bodies that form respective toner images in different colors to produce a full color image (col. 6, lines 16-48; and figure 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the claimed plurality of photosensitive bodies, as disclosed by Furuya (...952), since such a plurality of photosensitive bodies are well known in the art to be used to form a color toner image.

Allowable Subject Matter

15. Claims 7-10, 22-24, 26 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior Art

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Furuya et al. (US 5,499,080), Handa et al. (US 5,737,663), Kikui et al. (US 5,749,022), Yoo (US 5,812,905), Kaname et al. (US 5,842,081), Yamane et al. (US 5,974,277), Suzuki et al. (US 6,385,409) and Yoshikawa et al. (US 6,744,994) disclose a charge member for electrically charging an object.

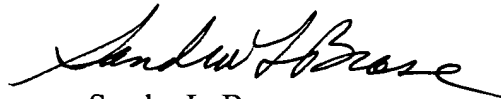
Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra L. Brase whose telephone number is 571-272-2131. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur T. Grimley, can be reached on 571-272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2852

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Sandra L. Brase", with a stylized, flowing script.

Sandra L. Brase
Primary Examiner
Art Unit 2852

April 21, 2005